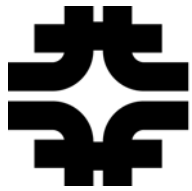


Template for Scenarios

Erik Gottschalk

May 19, 2005



Overview

- **Sample Scenario**
- **Scenario Template**



Sample Scenario (short version)

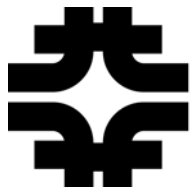
Goal: diagnose an intermittent hardware failure in the CMS pixel readout system detected by a new data-quality monitoring tool

Actors:

- CMS detector expert
- CMS shifter (at CERN)
- Remote operator (at Fermilab)

Scenario:

- An alarm is triggered in the CMS main control room by a data-quality monitoring application.
- CMS shifter determines that this is the first time this alarm has occurred (no guidance in standard procedures, no previous incidents mentioned in ELog).



Sample Scenario (cont.)

Scenario:

- A call is placed to the designated detector expert.
- The detector expert logs in from home to access the data-quality monitoring information, and verifies that a real problem has been detected.
- The detector experts starts a monitoring job that looks at data in finer time bins using data-quality monitoring data on a disk at CERN.
- The monitoring job shows that there is an intermittent failure in the forward pixel detector.
- The detector expert calls the Fermilab Remote Center and asks them to display occupancy plots for specific time periods for the entire forward pixel detector on a large, high-resolution display.
- The display shows dead regions in for forward pixel detector.
- The Fermilab remote operator contacts responsible people of the intermittent failure and makes a Elog entry describing the problem.



Scenario Template

Instructions: List the steps necessary to perform a particular scenario. Do not include any implementation details here, only brief statements of actions and responses for each one. Each scenario should cover one specific task.

Scenario Template:
Doc DB # 113

| | |
|-------------|--|
| Scenario ID | (leave this blank for now) |
| Author | Who developed (thought up) the scenario |
| Date | Approximate date of when the scenario was developed Example: 19-May-2005 |
| Goal | Short, active verb phrase that describes the scenario |
| Level | Best guess whether this is a high level, mid-level, or low level scenario Examples: 1)high level: run a shift in the remote operations center 2)mid-level: locate and contact a CMS detector expert 3)low level: find CMS detector expert in a directory |
| Actors | Who is involved in the scenario |
| Trigger | What initiates the scenario |
| Narrative | A description of the scenario. This should be a numbered list of individual steps that explain various tasks in the order in which they occur (assuming there is a time sequence). |
| Exceptions | Any alternatives or error conditions that influence the scenario |
| Comments | Other information that may be relevant to this scenario |



Scenario Example

| | |
|-------------|--|
| Scenario ID | (leave this blank for now) |
| Author | Erik Gottschalk |
| Date | 12-May-2005 |
| Goal | Diagnose an intermittent hardware failure in the CMS pixel readout system detected by a new data-quality monitoring tool |
| Level | Mid-level |
| Actors | CMS detector expert, CMS shifter (at CERN), Remote operator (at Fermilab) |
| Trigger | An alarm in the CMS main control room |
| Narrative | <ol style="list-style-type: none">1) An alarm is triggered in the CMS main control room by a data-quality monitoring application.2) CMS shifter determines that this is the first time this alarm has occurred.3) A call is placed to the designated detector expert.4) The detector expert logs in from home to access the data-quality monitoring information, and verifies that a real problem has been detected.5) The detector experts starts a monitoring job that looks at data in finer time bins using data-quality monitoring data on a disk at CERN.6) The monitoring job shows that there is an intermittent failure in the forward pixel detector.7) The detector expert calls the Fermilab Remote Center and asks them to display occupancy plots for specific time periods for the entire forward pixel detector on a large, high-resolution display.8) The display shows dead regions in for forward pixel detector.9) The Fermilab remote operator contacts responsible people of the intermittent failure and makes a Elog entry describing the problem. |
| Exceptions | |
| Comments | |



Summary

- **Develop scenarios that describe how a Remote Center at Fermilab would be used.**
- **While developing the scenarios, ask yourself the following questions:**
 - **Why would someone need to work in the Remote Center, as opposed to working at home or a home institution.**
 - **Why would someone need to contact the Remote Center, as opposed to contacting a control room at CERN.**
- **Use the scenario template for your scenarios.**
- **With these scenarios we will begin to construct a hierarchy and begin to extract requirements.**